

E-20-H29
#1

New York 2001 Remote Sensing Study

Final Report

Prepared for
Environmental Systems Products

By the
Air Quality Laboratory
School of Civil & Environmental Engineering
Georgia Institute of Technology



Attached is the final summary report for the New York 2001 remote sensing study. Also included is a CD-ROM containing the project database and all related files.

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Summary Data Collection Report For NewYork2001

Site ID: TC101 RSD Unit Number: 503 Date: 05/08/2001
Start: 08:33:52 End: 17:32:21 Operator: Benney
Notes: Route 16 Eastbound Portion Road Between Linden Street and Beech Street.
Calibrations Performed: 8 Average Traffic: 750 Beam Block: 6720
License Plate- Visible: 5423 State: 5289 Matched RDB: 0
Speed- Average: 25 St. Dev.: 4.5807 Count: 5283
Acceleration- Average: 0.31 St. Dev.: 0.6412 Count: 5262
CO- Average: 0.33 St. Dev.: 0.9271 Count: 6080
HC- Average: 44 St. Dev.: 130.20 Count: 6061
NOx- Average: 579 St. Dev.: 869.81 Count: 5295
All Valid Data = 4170

Site ID: TC 96 RSD Unit Number: 556 Date: 05/08/2001
Start: 08:38:25 End: 17:32:21 Operator: Alex Samoylov JoAnna Shorter
Notes: Long Island Site#TC96 Rt 111 N Just N of Alkier St at LIPA
Calibrations Performed: 7 Average Traffic: 447 Beam Block: 3913
License Plate- Visible: 2782 State: 2694 Matched RDB: 0
Speed- Average: 26 St. Dev.: 6.8549 Count: 3558
Acceleration- Average: 4.65 St. Dev.: 264.4421 Count: 3553
CO- Average: 0.37 St. Dev.: 0.9569 Count: 3096
HC- Average: 76 St. Dev.: 195.72 Count: 3036
NOx- Average: 523 St. Dev.: 746.98 Count: 2424
All Valid Data = 2274

Site ID: TC101 RSD Unit Number: 503 Date: 05/09/2001
Start: 08:41:26 End: 17:52:16 Operator: Benney
Notes: Route 16 Eastbound (Portion Rd) Between Linden Street and Beech
Calibrations Performed: 6 Average Traffic: 807 Beam Block: 7400
License Plate- Visible: 6187 State: 6067 Matched RDB: 0
Speed- Average: 26 St. Dev.: 4.1937 Count: 7112
Acceleration- Average: 0.40 St. Dev.: 0.5938 Count: 7102
CO- Average: 0.33 St. Dev.: 0.9246 Count: 6648
HC- Average: 44 St. Dev.: 202.54 Count: 6629
NOx- Average: 585 St. Dev.: 911.49 Count: 5456
All Valid Data = 5256

Site ID: TC 96 RSD Unit Number: 556 Date: 05/09/2001
Start: 08:22:16 End: 18:01:37 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#96 Rt 111 N just N of Alkier St at LIPA
Calibrations Performed: 10 Average Traffic: 687 Beam Block: 6608
License Plate- Visible: 4523 State: 4397 Matched RDB: 0
Speed- Average: 25 St. Dev.: 7.2138 Count: 6052
Acceleration- Average: 0.19 St. Dev.: 1.5139 Count: 6041
CO- Average: 0.39 St. Dev.: 1.0339 Count: 4994
HC- Average: 86 St. Dev.: 264.43 Count: 4923
NOx- Average: 581 St. Dev.: 819.21 Count: 3541
All Valid Data = 3250

Site ID: TC100 RSD Unit Number: 503 Date: 05/10/2001
Start: 08:55:16 End: 17:56:08 Operator: Benney
Notes: Route 16 Westbound (Portion Rd) Between Smith Ave and Bayberry
Calibrations Performed: 5 Average Traffic: 690 Beam Block: 6205
License Plate- Visible: 4591 State: 4446 Matched RDB: 0
Speed- Average: 26 St. Dev.: 4.6223 Count: 5741
Acceleration- Average: 0.31 St. Dev.: 0.5930 Count: 5725
CO- Average: 0.31 St. Dev.: 0.8452 Count: 5072
HC- Average: 41 St. Dev.: 134.33 Count: 5056
NOx- Average: 502 St. Dev.: 772.28 Count: 3977
All Valid Data = 3669

Site ID: TC98 RSD Unit Number: 556 Date: 05/10/2001

Start: 08:52:55 End: 17:35:18 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#TC98 Rt 25 West in Village of the Branch
Calibrations Performed: 7 Average Traffic: 981 Beam Block: 8529
License Plate- Visible: 5732 State: 5549 Matched RDB: 0
Speed- Average: 26 St. Dev.: 8.2655 Count: 8035
Acceleration- Average: 0.25 St. Dev.: 1.7529 Count: 8024
CO- Average: 0.18 St. Dev.: 0.6008 Count: 6140
HC- Average: 51 St. Dev.: 134.01 Count: 6065
NOx- Average: 381 St. Dev.: 713.82 Count: 4284
All Valid Data = 4044

Site ID: TC100 RSD Unit Number: 503 Date: 05/11/2001
Start: 08:33:53 End: 18:00:03 Operator: Benney
Notes: Route 16 Westbound(Portion Rd) Between Smith Ave and Bayberry Rd Outside of the Lake Shore Plaza Shopping Center.
Calibrations Performed: 5 Average Traffic: 721 Beam Block: 6792
License Plate- Visible: 4879 State: 4788 Matched RDB: 0
Speed- Average: 26 St. Dev.: 4.5227 Count: 6605
Acceleration- Average: 0.29 St. Dev.: 0.6022 Count: 6602
CO- Average: 0.36 St. Dev.: 1.0088 Count: 5487
HC- Average: 47 St. Dev.: 162.19 Count: 5458
NOx- Average: 518 St. Dev.: 801.81 Count: 4083
All Valid Data = 3984

Site ID: TC98 RSD Unit Number: 556 Date: 05/11/2001
Start: 08:40:23 End: 17:31:25 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#TC98 Rt 25 West in Village of the Branch
Calibrations Performed: 7 Average Traffic: 1043 Beam Block: 9219
License Plate- Visible: 5828 State: 5734 Matched RDB: 0
Speed- Average: 23 St. Dev.: 8.0499 Count: 8547
Acceleration- Average: 0.13 St. Dev.: 1.8388 Count: 8516
CO- Average: 0.20 St. Dev.: 0.6895 Count: 6884
HC- Average: 58 St. Dev.: 284.65 Count: 6776
NOx- Average: 308 St. Dev.: 598.21 Count: 4944
All Valid Data = 4596

Site ID: TC101 RSD Unit Number: 503 Date: 05/12/2001
Start: 07:42:39 End: 14:00:45 Operator: Benney
Notes: Route 16 Westbound (Portion Rd) Between Smith Ave and Bayberry
Calibrations Performed: 4 Average Traffic: 770 Beam Block: 4842
License Plate- Visible: 3609 State: 3503 Matched RDB: 0
Speed- Average: 26 St. Dev.: 4.8077 Count: 4780
Acceleration- Average: 0.22 St. Dev.: 0.6363 Count: 4778
CO- Average: 0.34 St. Dev.: 0.9652 Count: 3808
HC- Average: 51 St. Dev.: 238.65 Count: 3789
NOx- Average: 408 St. Dev.: 687.44 Count: 2903
All Valid Data = 2868

Site ID: TC98 RSD Unit Number: 556 Date: 05/12/2001
Start: 09:14:51 End: 14:30:31 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#TC98 Rt 25 in Village of the Branch
Calibrations Performed: 5 Average Traffic: 977 Beam Block: 5131
License Plate- Visible: 2727 State: 2633 Matched RDB: 0
Speed- Average: 29 St. Dev.: 8.4709 Count: 4932
Acceleration- Average: -0.20 St. Dev.: 1.5363 Count: 4916
CO- Average: 0.19 St. Dev.: 0.7054 Count: 2862
HC- Average: 58 St. Dev.: 226.80 Count: 2829
NOx- Average: 290 St. Dev.: 595.68 Count: 1691
All Valid Data = 1634

Site ID: TC98 RSD Unit Number: 503 Date: 05/14/2001
Start: 08:29:59 End: 18:11:34 Operator: Benney
Notes: Route 25 Westbound i Village of the Branc. Located Between
Calibrations Performed: 6 Average Traffic: 1033 Beam Block: 10002
License Plate- Visible: 6548 State: 6424 Matched RDB: 0
Speed- Average: 21 St. Dev.: 6.2838 Count: 9436

Acceleration-	Average: 0.12	St. Dev.: 1.0687	Count: 9404
CO-	Average: 0.21	St. Dev.: 0.6236	Count: 7210
HC-	Average: 45	St. Dev.: 155.84	Count: 7183
NOx-	Average: 378	St. Dev.: 714.22	Count: 5711

All Valid Data = 5423

Site ID: 13 RSD Unit Number: 556 Date: 05/14/2001
Start: 08:46:41 End: 17:22:48 Operator: Alex Samoylov JoAnna Shorter
Notes: Site # 13 Central Park West crossing 62 Street
Calibrations Performed: 10 Average Traffic: 709 Beam Block: 6062
License Plate- Visible: 4289 State: 3808 Matched RDB: 0
Speed- Average: 16 St. Dev.: 4.9272 Count: 4591
Acceleration- Average: 1.54 St. Dev.: 2.5353 Count: 4491
CO- Average: 0.29 St. Dev.: 0.5759 Count: 5296
HC- Average: 52 St. Dev.: 94.04 Count: 5087
NOx- Average: 797 St. Dev.: 1003.93 Count: 4198
All Valid Data = 3132

Site ID: TC101 RSD Unit Number: 503 Date: 05/15/2001
Start: 08:04:39 End: 18:01:03 Operator: Benney
Notes: Route 16 Eastbound Portion Rd Between Linden Street and Beech Street.
Calibrations Performed: 6 Average Traffic: 772 Beam Block: 7663
License Plate- Visible: 6482 State: 6332 Matched RDB: 0
Speed- Average: 25 St. Dev.: 4.3421 Count: 7232
Acceleration- Average: 0.43 St. Dev.: 0.6268 Count: 7204
CO- Average: 0.32 St. Dev.: 0.9261 Count: 6984
HC- Average: 43 St. Dev.: 116.54 Count: 6954
NOx- Average: 620 St. Dev.: 917.58 Count: 5821
All Valid Data = 5523

Site ID: TC 96 RSD Unit Number: 556 Date: 05/15/2001
Start: 08:24:55 End: 17:54:59 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#TC96 Route 111 N just N of Alkier Rd
Calibrations Performed: 7 Average Traffic: 702 Beam Block: 6653
License Plate- Visible: 4308 State: 4162 Matched RDB: 0
Speed- Average: 25 St. Dev.: 6.8911 Count: 6054
Acceleration- Average: 0.21 St. Dev.: 1.5095 Count: 6024
CO- Average: 0.39 St. Dev.: 1.0241 Count: 4750
HC- Average: 86 St. Dev.: 222.28 Count: 4545
NOx- Average: 696 St. Dev.: 927.33 Count: 3064
All Valid Data = 2764

Site ID: TC101 RSD Unit Number: 503 Date: 05/16/2001
Start: 09:07:49 End: 17:00:27 Operator: Chuck Thom Behny
Notes: RT. 16 Eastbound (Portion Rd.) b/t Linden St. and Beech St.
Calibrations Performed: 5 Average Traffic: 789 Beam Block: 6200
License Plate- Visible: 5385 State: 5198 Matched RDB: 0
Speed- Average: 26 St. Dev.: 4.1683 Count: 5988
Acceleration- Average: 0.42 St. Dev.: 0.6106 Count: 5981
CO- Average: 0.32 St. Dev.: 0.9559 Count: 5702
HC- Average: 44 St. Dev.: 133.97 Count: 5683
NOx- Average: 575 St. Dev.: 859.20 Count: 4797
All Valid Data = 4638

Site ID: TC 96 RSD Unit Number: 556 Date: 05/16/2001
Start: 08:14:15 End: 17:43:23 Operator: Alex Samoylov JoAnna Shorter
Notes: New York LI Site#TC96 Rt 111 N just N of Alkier St
Calibrations Performed: 7 Average Traffic: 699 Beam Block: 6619
License Plate- Visible: 4502 State: 4348 Matched RDB: 0
Speed- Average: 26 St. Dev.: 7.3941 Count: 6121
Acceleration- Average: 0.16 St. Dev.: 1.4587 Count: 6116
CO- Average: 0.39 St. Dev.: 1.0274 Count: 4994
HC- Average: 88 St. Dev.: 272.14 Count: 4926
NOx- Average: 585 St. Dev.: 840.51 Count: 3484
All Valid Data = 3252

Site ID: 9A RSD Unit Number: 503 Date: 05/17/2001
 Start: 08:34:32 End: 14:35:21 Operator: Brian and Benney
 Notes: Queensboro Bridge Queens Inbound. On-ramp to Upper Deck from 21
 Calibrations Performed: 3 Average Traffic: 511 Beam Block: 3070
 License Plate- Visible: 2843 State: 2618 Matched RDB: 0
 Speed- Average: 16 St. Dev.: 2.4399 Count: 3029
 Acceleration- Average: 1.00 St. Dev.: 0.6029 Count: 3028
 CO- Average: 0.31 St. Dev.: 0.7122 Count: 2968
 HC- Average: 47 St. Dev.: 75.40 Count: 2959
 NOx- Average: 853 St. Dev.: 1139.22 Count: 2737
 All Valid Data = 2698

Site ID: K70 RSD Unit Number: 556 Date: 05/17/2001
 Start: 08:04:50 End: 16:53:08 Operator: Alex Samoylov JoAnna Chuck
 Notes: New York King Site # K 70 Knapp St to Belt Parkway East
 Calibrations Performed: 6 Average Traffic: 727 Beam Block: 6383
 License Plate- Visible: 4954 State: 4522 Matched RDB: 0
 Speed- Average: 27 St. Dev.: 6.3375 Count: 6334
 Acceleration- Average: 0.84 St. Dev.: 1.1430 Count: 6327
 CO- Average: 0.29 St. Dev.: 0.8263 Count: 5250
 HC- Average: 46 St. Dev.: 171.92 Count: 5163
 NOx- Average: 466 St. Dev.: 714.42 Count: 4439
 All Valid Data = 4375

Site ID: W62 RSD Unit Number: 503 Date: 05/18/2001
 Start: 08:14:47 End: 19:01:15 Operator: Brian Hamilton
 Notes: From 287 E.B. to Hutchinson River Parkway S.B.
 Calibrations Performed: 9 Average Traffic: 617 Beam Block: 6599
 License Plate- Visible: 5725 State: 5032 Matched RDB: 0
 Speed- Average: 21 St. Dev.: 4.1145 Count: 4120
 Acceleration- Average: 0.31 St. Dev.: 0.7156 Count: 4111
 CO- Average: 0.20 St. Dev.: 0.6296 Count: 6006
 HC- Average: 31 St. Dev.: 79.84 Count: 5989
 NOx- Average: 313 St. Dev.: 600.56 Count: 5419
 All Valid Data = 3340

Site ID: N81 RSD Unit Number: 556 Date: 05/18/2001
 Start: 09:37:09 End: 18:27:42 Operator: Chuck Thom Alex Joanna
 Notes: Route 27 E to Meadowbrook Pkwy N
 Calibrations Performed: 6 Average Traffic: 501 Beam Block: 4421
 License Plate- Visible: 3745 State: 3539 Matched RDB: 0
 Speed- Average: 22 St. Dev.: 3.4810 Count: 4399
 Acceleration- Average: 0.69 St. Dev.: 1.1883 Count: 4386
 CO- Average: 0.23 St. Dev.: 0.7292 Count: 3994
 HC- Average: 40 St. Dev.: 98.89 Count: 3962
 NOx- Average: 343 St. Dev.: 600.03 Count: 3261
 All Valid Data = 3232

Site ID: R-51 RSD Unit Number: 503 Date: 05/19/2001
 Start: 07:33:36 End: 18:17:23 Operator: Benney and Brian
 Notes: Route 303 South Bound to I-87 South bound at the Palisades Mall.
 Calibrations Performed: 6 Average Traffic: 281 Beam Block: 3012
 License Plate- Visible: 2265 State: 2029 Matched RDB: 0
 Speed- Average: 21 St. Dev.: 3.9874 Count: 2807
 Acceleration- Average: -0.51 St. Dev.: 0.8406 Count: 2791
 CO- Average: 0.19 St. Dev.: 0.5934 Count: 2470
 HC- Average: 28 St. Dev.: 109.96 Count: 2444
 NOx- Average: 252 St. Dev.: 532.57 Count: 1932
 All Valid Data = 1824

Site ID: B-43 RSD Unit Number: 556 Date: 05/19/2001
 Start: 09:37:56 End: 14:56:41 Operator: Chuck Thom Joanna Shorter
 Notes: Gun Hill Rd. to 195 Southbound
 Calibrations Performed: 4 Average Traffic: 1237 Beam Block: 6559
 License Plate- Visible: 5195 State: 4341 Matched RDB: 0
 Speed- Average: 17 St. Dev.: 7.1688 Count: 6338